# Sandia Bulletin <br>  

## "The Great Leland" Has Put Down the Wand To Work with Department 1134 <br> E. C. Deutschle Is Appointed New 4120 Manager

Thurston, the famous magician, ap
peared on the vaudeville stage for a week run. In the audience every night was a nine-year-old boy. At the close of Thurston's Enid appear ance, young Leland Sangster knew every trick of the great master and decided to become a magician himself,
Today Leland Sangster is em ployed by Sandia Corporation in Division 1134, and has behind him a fascinating story of his years on the vaudeville stage as "The Great Leland
The years of professional appearances and skill in his former profession were recognized last week by his fellow magicians when they elected him president of Ring 9


Leland M. Sangster
of the International Brotherhood of Magicians in Albuquerque. Lee has been a member of the Brotherhood for 25 years and has performed at many of their conventions. Three years ago he appeared before the can find (fellow magicians) in Ren can find (fellow magicians) in Reno and was given high praise and a of billiard balls.
"The Great Leland" is a modest, soft-spoken man who bears Ernie Pyle. Ernie Pyle. He looks back upon his years on vaudeville stage as "grea fun and has a warm memory With the appearance wan whe appearance of a suav man who has astounded thousand
the Bulletin reporter by rolling a silk handkerchief into a small ball until it disappeared while telling the story of his days on the stage. Then he reached down without interrupting the fascinating tale, and pulled the piece of silk from behind his knee Leaving his one-man audience completely befuddled, Lee went on to relate that among the most enjoyable of his experiences were the 1,000 times he drove automobiles through heavy traffic while com pletely blindfolded. In addition to a quilted mask on his eyes, he wor a double black sack over his head This stunt brought a fee of $\$ 50$ during the depression years and he thrilled many thousands of midwesterners in his appearances. "I never had an accident," he says, "but there were some close shaves." They stil talk about blindfolded driving up in Iowa and they are as puzzled now as they were then
Many times in his career he has sawed a woman in half," suspended silver dollars he has made disappea are too numerous to be counted. Lee lists among his friends vaudeville days such famous men as Jack Benny and Eddie Cantor Many times he was billed with the Cherry Sisters. Vaudeville had its ups and downs and at one time Lee left the stage to work for the post office department. He stayed with Uncle Sam for 15 years, but the call of the footlights finally became too strong and he returned to the Keith and Orpheum circuits.
In 1942 Lee put aside his $\$ 10,000$ worth of magician's paraphernalia and did war work at Collins Radio Company in Cedar Rapids, Ia. In 1948 he moved to Albuquerque and started working for Sandia Labora-

Lee, his wife, and four daughters live on Sandia Base. His oldes daughter, Claudia, is employed by Sandia Corporation as a computor at West Lab. Doreen will graduate from Highland High Schoo this year and Patricia and Marilyn are students at Sandia Base school. Only Marilyn evidences an interest in the art of magic and she shows indications that she may follow in her father's footsteps.
Electronics today occupy Lee's working hours, but he is happy to have as his hobby the practice of sleight-of-hand which was his profession for so long. Lee has A. H Spengeman, 4134 , to assist him in the magicians' club leadership. A1 has been elect
Ring 90.


THE GREAT LELAND PREPARES TO DRIVE a car while com pletely blindfolded. This old photograph of Leland Sangster is of one of his many appearances in his special act in the Midwest. Lee, now with Sandia Corporation, was elected president of Ring 90 of the International Brotherhood of Magicians last week.
"Ive been in many states," says
E. C. Deutschle, newly appointed E. C. Deutschle, newly appointed
manager of Department 4120 , "and I manager of Department 4120, "and I like the state of New Mexico
better than any of them." This better than any of them.. This
statement comes from a native New statement comes from a native New
Yorker who has been in the state Yorker who has been in the state for a year and is sure of what he is talking about. Emil has, just recently been appointed manager the department reporting to J. A Dempsey, secretary and comptroller
After living all his years in the After living all his years in the Empire State, he came to Albuquer-
que in March, 1950, and was followe que in March, 1950, and was followed
several months later by his wife and son, Gregory, who is now 14 months son,
old.
While receiving his education i

E. C. Deutschle
by Consolidated Edison Co . and then by C. J. Tagliabue Manufacturing Co. He attended New York Univergraduated with a Bachelor of Sci ence degree in Accounting. For the next two years he studied evenings in St. John's University Law School in Brooklyn.
In 1936 he started to work for Western Electric Company and was assigned to the Kearny plant in Kearny, N. J. In 1941 Emil entered the army as a private and was discharged in 1946 as a captain in the Corps of Engineers. During this period he had 18 months duty with the Third Army in Europe. After leaving the Army, Emil returned to Kearny where he remained until coming to Sandia Corporation wher he headed division 4122 until the rent appointment.
An ardent golfer, this transplanted est climate in the country for the sport. He tries to get onto the the sport. He tries to get onto the fair ways at least once a week and has
plenty of golf companions. But he does have difficulty finding a tenni partner and tennis is another of his partner and tennis is another of his
favorite sports. Mrs. Deutschle was favorite sports. Mrs. Deutschle was young Gregory arrived and now she is too busy.
Whenever Emil talks of his son, he has to break into praises of our New Mexico climate. His boy spends many hours outdoors in the sun and is "brown as a berry" and flourishing in health.

## Toastmasters Heard

On Radio Program
sters ap peared on a 15 -minute radio program Monday night. The program consisted of a discussion of the advisability of drafting 18 -year-olds and was one of a series of such discussions regularly presented on KVER by the various Toastmasters clubs in Albuquerque.
Participating in the program were Randy Parsons, 1251, Charles Run yan, 1220, and Ted Sherwin, 3125.

First Aid for Mathematicians


Machine Operator Margaret Matlack smiles while the Electronic Calculator computes arithmetical problems under her watchful eye. Mar garet is or fill Alice Montoya, Tom Herrill, and Lamar Johnson. L. E. Mahuron, John Stark, and Carem are the programmers of the division who pre pare the calculators to solve problems.

## Complicated Electronic Calculators Solve Complex Math Problems Easily

as the tongue of Cooch Behar, you'll love these "mechanical brain" computing machines found in Division 1613. Used in compiling statistical data, they can do arithmetical calculations more accurately and faster than an army of mathematicians wielding pencils. In fact, these machines, called Card Programmed Electronic Calculators, can accomplish in second what a could noms Henry Schutzberger heads the division using these machines and L E. Mahuron is in charge of the operat ing section. The calculators are manufactured and made available to industry on a rental basis by International Business Machmes Corporation. San dia Corporation, with three calculators, is using more of these the nation at this time.
Understandably, personnel of 161 have shortened the title of the equipment from Card Programmed Electronic Calculator to "CPC." They found they could "CPDete some before they could pronounce the titl bestowed by IBM
Operation of the CPC is explained by Hank Schutzberger as follows: Each machine consists of four units which are interconnected by cables Problems are introduced into the first unit, the accounting machine, on data cards containing numbers to be used in the arithmetical calculations. These which tell the CPC what to do with the figures. Cards enter the machine at the rate of 150 per minute. This unit will print the answers to the problems if desired. It also may be adjusted so that each step in the calculations is recorded on paper as well as the final answer.
Computing is actually accomplished in the second unit, the electronic cal culator, a complex piece of equipment with 1,300 vacuum tubes. This unit is capable of doing 200 to 300 multiplications or divisions or 3,000 to 4,000 additions or subtractions per second. This speed is never actually attained, however, for production is controlled by the rate at which the accounting machine can receive the punch cards. Another unit of the machine is the torage medium known to the operator as the "ice box."" The direction cards instruct the system to store or remember certain tabulations and then return them to the accounting machine at the
proper time to be used in a calculation.

The summary punch, the fourth unit, punches answers to the problems on plete.

Basically, the machines do the four arithmetical operations-addition, subtraction, division and multiplication but long sequences of combinations of these operations make easy the computation of square roots, trigonometric functions such as sine and cosine cal culations, and any other function that may be
terms.
One problem recently computed by the device involved 300 mathematical steps utilizing seven decimal places The operation was completed in 55 seconds. It is estimated that an experienced operator with an electrical desk calculator would require at least eight hours to complete this same set of operations.
A new mac
A new machine is being developed by IBM which, by using magnetic tape instead of punch cards, will complete problems 10 to 100 times as fast as the CPC.
It would be difficult to determine how many mathematicians would be needed in the division to do the wor savings are measured in time but savingmy of the instruments is tremend ecenom
ous.
The
The division offers its services to any Sandia Corporation department having an involved or recurring mathematical problem. At the present the machines are running 10 hours a day, six days a week on high priority problems, but personnel of the department will discuss and assist in solving any problem except income tax." The operator the admit that even on the long form 20 seconds.

## Radio Code Classes Given

On Base Twice Each Week
bein Radio Clwice each week by Sandia building T-317 on 'H' Street. Classe are each Tuesday and Thursday evening under the instruction of Frank Irwin, 1713, and Lt. Paul Arndt, both amateur radio operators.
Basic and advanced instruction is offered and employees of Sandia Corporation and their families, as well as other Base personnel, are invited to attend the classes. There is no charge
for the instruction.

# Sandia Bulletin <br> Friday, April 13, 1951 

Published for the employees of Sandia Corporation, Albuquerque, New Mexico.

## Robert S. Gillespie, Editor

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## Telephone Ext. 25253

## Our Relations with the Public

## No business or organization can decide for itself whether or not it

 pants "public relations." It has them in spite of itself; therefore, its task and, indeed, its obligation, is to make them the best possible. Public relations are the sum of all that the persons connected mith a business say and do in public.Good public relations, then, result from a combination of (1) sound operating principles, (2) a record of accomplishment, and (3) a knowledge of these policies and accomplishments, not only by the company's own personnel but by the people of the community in which it is located.

It is obvious that Sandia Corporation can't say much about the work we do here, but within the limits of security and propriety an effort is being made to let the people of Albuquerque know in a general way how we fit into the national defense and atomic energy program. That's why Sandia Corporation released this week, with the concurrence of the AEC, a picture story about the development of Sandia. People instinctively fear a picture story about the development of Sandia. People instinctively fear
what they do not undersland, and fear leads to dislike. We want Albuwhat they do not understand
quergue to know us better.

The impact of a new project like ours on a community of this size is not one to be taleen lightly, and it is no wonder that many older residents here have viensed the gronth of the laboratory mith some misgivings. True, we are adding vast sums of money to the community, and contribuling materially to the growth of the city, but this very growth places staggering demands on the community for many services including public utilities, streets, schools, fire, and police protection.

Now, at a time when we are expanding our working force and stepping pour schedules to meet urgent defense requirements, it is more important than ever that we have the full support and cooperation of the community and the public in general. Let us all strive to be good citizens as well as capable workers, and let us all do our part to "sell" the laboratory through he development of enduring good will. Until the full story of our accomplishments can be revealed we must rely entirely upon the confidence of the public that we are doing the best possible job in the least possible time, and with a minimum interruption of the normal peacetime economy. What our neighbors and business friends think of us as individuals will delermine our neighbors and business friends hink of us as individ
the community's attitude toward the project as a whole.


Company. Both are graduates of Albuquerque High School. ouple plan a June wedding. Patricia Claire Niggel, 4131, and Sgt. Bernaried April 20. The couple have married April 20. The couple have huahua, Mexico, and will make their home in Albuquerque upon their home in Albuquerque upon their
return.
Corine Gaultney, AEC, and Leroy Dickens were married March 24 at is a student at St. Joseph's College.

## Sandia Engineers

## Panel Speakers at

## Engineer Meeting

Plans for unification of the engineering profession will be discussed at a dinner-meeting of The American Society of Mechanical Engineers, dor De Soto.
Panel speakers will include Glen Fowler, 1600 ; L. A. Hopkins, 1270, and Don Bliss, 2112-1.
Dinner will start at 7 p.m. and the cost is \$2 a plate. Reservations hould be made in advance with C H. DeSelm, ext. 21152; Lee Toliver, ext. 7253, or E. C. Rightleg at the University.
An open discussion period will follow the panel speeches and all engineers are invited to attend.

## Men Invited to Sing with New Base Glee Club

le glee club is in progress with the first rehearsa scheduled for Friday, April 13, in the Coronado Club at $7: 30$ p.m. All men who are interested in particiquested to contact $D$ chorus are re1243 , 24243 Singers. Robinson, ous glee cluh experience are in special demand, but anyone interested in singing, even those without vocal training, are invited to attend rehearsals. Membership will be open to all men employed on Sandia Base. Terry Riggin, 1243, will direct the glee club. Terry served for seven years as director of the Martinnaires, a chorus sponsored by the Glenn L. Martin Company of Baltimore.


DO YOU SUFFER FROM TRISKAIDEKAPHOBIA? Helen Nielson, 2462-2, prescribes the perfect treatment for that ailment which is often found on days like this. Helen really isn't superstitious, but we think you'll agree this photograph is a pleasant reminder that this is Friday the Thirteenth.

## Speech on Measurements

 Scheduled for ISA MeetingClaude M. Hathaway, president of the Hathaway Instrument Company of Denver, Colo., will be guest speaker at the Aprik 16 meeting of he Instrun John A. Southwick, 1282, chairman ounced The meeting will bell t 8 pm in Hadley Hall at the University of New Mexico
Mr. Hathaway, whose topic will be "Specific Measurements," is the author of a number of papers on ments, and kindred topics, and taught electrical engineering at the taught electrical engineering at the mater, for several years. In 1938 he mater, for several years. In 1938 he pany in Denver, producing a variety pany in Denver, producing a variety of specialized instruments such as ord," a miracle of suit-case size efficiency which makes unnecessary the work of tons of separate recording devices used in airplane testing. All interested are invited to attend.

## AROUND THE DEPARTMENTS

2210 held a department luncheon at the Coronado Club March 30 welcoming Rosemary Trinkle and idding farewell to Doty Constant who is leaving for "Jolly Old Lontarial position in England.

Personnel of 2221 are much relieved now that Jack L. Miller's child is improving. The little boy was sick with the measles and then pneumonia and had to be put in an oxygen tent. All of 2221 helped Jack worry.

Ralph and Ruth Larsen and Al Rizzoli went to Calexico. Calif., last week end for a California State Pistol Match. Ralph and A1, both of 2123-1, are both marksmen with the pistol and Ralph took third place in the Rocky Mountain Regional Pistol Championship held at Denver in July, 1949. Ruth, Ralph's wife. works in 2461-3.

Phyllis Perkowski is now working in the 2100 organization, having transferred from 2250.

Inspector James Lossing, 2450, who suffered a broken pelvis when who suffered a broken pelvis when ower, is recovering at Osteopathic Hospital in Albuquerque.

Paul Snyder, AEC, left for the Army last week and Gerald Prom, AEC, will be leaving soon to join United Airlines as a pilot.

Nancy Mally Brush, 3160 , is taking her new duties as a housewife seriously. She plans to retire to Cedar Crest and raise a few chickens and is going to take Nancy's place

Mrs. Irene Palmer, 3160, is still Mrs. Yrene Palmer, 3100 , is still be back on the job.

Everyone feels very sorry for Haran Lenander, 1111, who is down with the mumps.

West Lab welcomes Richard Claafen to 1120 and Dale Mortiz to 1130.

It's the talk of West Lab-four of the 4211 personnel are sporting new cars. Art Coyne, Ray Allen, Roy Terry and George Burnside. Then there's Ilba Baldwin, 1100 . who wasn't going to be outdone.
J. Dill, 2242 , and family were on vacation last week enjoying scenic spots of the west coast and Phoenix.

Jack Mafit, 3152-1, left last week for a two-week recruiting tour to Wisconsin. He will meet John Risley, 2123,-in Madison and then travel to Milwaukee to join T. T. Robertson, 1251.

Charlotte Felchman has returned o. New Mexico after an extended visit in New Jersey. New Jersey is Charlotte's home state and she evidently had a nice visit
C. H. DeSelm, 1280, was initiated into Pi Tau Sigma as an honorary member April 4 at a dinner held at the El Comedor De Soto. 1 Sa Sigma is mechanical engineering fraternity and Mr. DeSelm's initiation consisted of a short Education and His "The Engineer's Education and His Job." Other Corporation men attending the dinner wison, 1283.
Dick Richards, 1282, and his fam-
ly are getting pretty well settled in their new home. It's located in the Inez Addition.

Division 2472 is very happy to have Donald Harrison, William Milnes and E. C. Pena join their organization.

The Spring formal dance held last Saturday night at the Coronado Club was reported as a big success.
Flowers used to decorate the balloom were given by Bari Floral and added a colorful touch.
Carl Zimmerman, 2112, is a new addition to the German band as a rummer. There are now six members in the band. Carl used to be in vaudeville and has been a drummer in many eastern dance bands.

Mr. and Mrs. Gordon King are the proud parents of a boy born the atter part of March. Gordon is in 1514-2.

Bob Sowell, 1514, is back to driving his old Ford. His wife, who teaches school in Oregon, came to New Mexico over the Easter holidays and took the new car back with days
her.

Division 1514 extends a welcome William L. Neeves. Bill came to this part of the country from La Jolla, Calif.

Bennie Garcia, 2231, was called by Selective Service last week and his co-w
luck.

Homer Baldwin, 3152-1, received his new 1951 Plymouth in the nick of time. The previous day, he ran his Chevy into the rear end of a car that had a sturdy trailer hitch and the grill on the Chevrolet was somewhat ruined.

Major J. E. Devine, who is assigned with 1243, reports that his three children are now happy. The Devines had a sedan and the children, who enjoy sleeping in the car, found it most difficult. Now they have a Pontiac station wagon and on a recent trip to Iowa, there were three very comfortable sleeping tots.

Robert Schmuck and Harry Bodenschats said goodbye to 3150 last week now that their clearances have een completed. Bob left to go to 4230 and Harry to 2330

Earle George, 1714, returned reently from vacation, most of which was spent in Alamogordo, N.M. On the way back from there, Earle's old 1939 Ford expired. Fortunately the expiration took place directly in ront of the General Motors dealer in Belen so now the Georges may be seen galavanting around in a beautiful 1949 green four-door Chevrolet.

Art Machen, 1710, spent last week on his ranch in Alameda. It wasn't much of a vacation, though, as Art was hard at work on hundreds of spring chores that have to be done on any ranch.

Max Weber, 1714, is recuperating nicely from an operation performed early this week for the removal of ?
Tillie Wheeler, 2461-3, is having quite a struggle with her new 1951 Buick Special. This is her first experience with a car and she is inding that driving a car isn't as easy as it might look.

The girls of 2461-3 were pink and blue conscious last Wednesday night when they honored Margaret Northcutt and Ida Maedowling with a stork shower. It was a surprise affair held at the home of Lucille Montoya, 612 N. Broadway.

Department 1240 has two April Fool babies. Mr. and Mrs. Charles D. Lantz had a daughter, Patricia, weighing $7 \mathrm{lbs} .51 / 2 \mathrm{oz}$., and Mr. and Mrs. Walter Hanson also had a
daughter, Sally Marie, weighing 8 daughter, Sally Mar is in 1242 and Walt in 1241.

Division 1243 extends a great big welcome to Walt Dalby, a transfer from 2110, Deane Swanton, from West Lab, and Jacque Quinn, a native of Albuquerque.

Terry Riggen, 1243, is scouting for male singers to form a Base men's choir. Terry directed a male choir at the Martin Aircraft Corporation when he worked there. Anyone in-
terested in singing should contact Terry on ext. 24243.

Glenn Simpson and Robert Blount, ooth of 4134, have information on installing a sprinkler, the easy way But, after putting one in Glenn's front yard, they learned the hard way.

Personnel of 4134 are very happy
to see Aileen Moore back on the job after a long illness.


Three Sandia Corporation mountain climbers scaled the west slope of the Sandia Mountains recently. They reached the top and all three men were in a picture taken without the aid of a delayed action shutter camera. The trick was turned by the cooperation and skill of a retouch all tired but smiling, pictured together at 10,678 feet above sea level.

## Try Scaling the West Slope of The Sandias for a Sunday Outing

Toastmistress Club Initiates New Members

Sandia Base Turquise Toastmi tress Club was held Wednesday, April 11, at the dinner meeting in the Officers' Club. Mrs. H. C. Biggs was initiating officer and those initiated were mesdames C. L. Lindquist, E. G. Miller, and A. J. Kruz. Toastmistress for the meeting was Mrs. G. L. Morrisroe and Topicmistress was Mrs. T. J. Jorgensen. Mrs. W. E. Caldes, Mrs. A. L. Dyer, and Miss Beth Krajovic were

Mrs. D. B. McCarthy was first place winner at the district speech contest held in Las Vegas, N.M., last week end. She will now represent this district at the Regional Toastmistress Convention to be held at Bakersfield, Calif., May 26-27. The winner there will represent the Southwest at the International convention to be held in Denver. Mrs. McCarthy's speech was entitled, "Poor Little Bright Child."
ing the west face of the Sandia Mountains near Albuquerque. Start from the Juan Tabo area and go up to the marker which is at the highest point of the mountains, commonly known to local people as "the crest." That's the Sunday exercise chosen by E. J. Domeier,J. C. Hart, and E. C. Peterson, all of 3210 , who safely
made the ascent and descent in one made the ascent and descent in one
day and reported they enjoyed it. The three Sandians took the La Luz trail which starts at about 6.400 feet altitude and takes climbers
through La Cueva canyon's beautithrough La Cueva canyon's beauti ful pine forests and up some pre-
cipitous cliffs to the top, 10,678 feet cipitous cliffs to the top, 10,678 feet above sea level. The easy way to
get to the top is to drive a car up get to the top is to drive a car up
the east slope, but this time of year the east slope, but this time of year
the upper portions of the road are deep under snow. Anyway it is the deep under snow. Anyway, it is the
west slope which is the challenge to mountaineers.
The slope has been tackled by many climbers and some have completed the undertaking and others have given it up. The three San the
men completed their climb on the second attempt.
Their first try a few weeks ago was thwarted when clouds moved in and they lost the trail while skirting the edge of a rock slide which covered the path.
A week later the three again undertook the climb and in about five hours completed the ascent. Weather was good this trip and the snow had thawed some, but was still as much as five feet deep
asses and protected areas
The grade is extremely steep most of the way and in some spots is just about perpendicular. Serious falls, ample opportunities for serious
but the Sandians scaled the face without serious injury. Jack Hart twisted his knee and turned an ankle, but was able to comper
climb. When the climbers reached the top, they took pictures of the marker
as proof of their accomplishment, ate some lunch and started down.
The descent was nearly as strenuous as the climb up. They likened one portion of the trip down to a 2,000 foot ski run and it was there Jack received his turned ankle. In three hours they were again at the foot of the mountain and after posing for a "near-exhaustion" picture at the trail's end, th
Albuquerque by car.
None of the three lays claim to being a highly skilled mountain climber. Jack reports this is his
first try at climbing, not counting first try at climbing, not counting
hiking up and down in the Ozarks. hiking up and down in the Ozarks Ernie Peterson is not a complete novice at mountaineering, but this
is his first time "for the fun of it." is his first time "for the fun of it.
Ernie's previous climbing experience Ernie's previous climbing experience
was in the Solomon Islands and Okinawa when there was more seriOkinawa when there was more serious business at hand. Ed Domeier
has had several climbs on some of the higher peaks in Colorado.
In addition to completing the $n$ mile-high climb the three may well be proud of another accomplishment -all of them reported for work the following day.


Irene L. Heck, 2461-3, is displaying her rag dolls which she recently made. The dolls have brown curly yarn hair, with embroidered eyes, noses, mouths, and even freckles. They stand about 14 inches tall and rene says she prefers to stuff them with worn-out nylon hose although these particular dolls are filled with cotton and sawdust. Irene started making rag dolls in 1948 purely for her own amusement, and then she made them for her nieces and nephews. Now she has a long list of orders which she says will take her quite a long while to fill. Harriette Shelton, 2111, was the recipient of this pair.


Safety's a good thing for all of us. No matter how long you've been here or what your job is, don't take their iob Help others be safe on their

Don't drive by guesswork. The morning and evening sun is blinding, Maintain visibility, keep your windsheild clean.

When You Reach Retirement Age Will You Be Financially Independent?

## Popular songwriters are not often

 considered psychologists, but there is one of them who might qualify. He"I've got a wonderful feeling everything's going my way.'
He's right, for we do have a wonderful feeling when everything's going our way. Fate appears to tak a hand occasionally and bring good fortune into our lives. There have een occasions of unexpected oil wells, rich uncles, radio program jackpots, or a winning Irish Sweep takes ticket.
But not many of us have such good fortune. For most of us the fortune, or lack of it, is usually the result of planning-or lack of it. Most people are fortunate because hey take opporturty by hand, bring it in the front door when needed. You may bring opportunity or ood fortune in your front door some Corporation Retirement Plan which is open to any employee. The plan, underwritten by the Prudential Insurance Company, guarantees an income when vour day for retirement arrives. Each month the Corporation deposits the employee contributions, and its own contribution of nearly twice what emplovees contribute, with Prudential. You must meet certain requirements to qualif get less than what you have con ributed. plus interest.
The Corporation has no definite age for retirement, but the Prudential Insurance Co. plan puts normal etirement age at 65 . Suppose tart participation in the plan. Also suppose your average annual salary during the years of your employment intil the age of 65 is $\$ 3,500$. Your contribution for each vear will be hree per cent of the first $\$ 3.000$ of earn above $\$ 3,000$ each year. Your average annual investment in the plan will be this
$3 \% \times \$ 3,000$ equals.....$\$ 90$
Total annual investment . . $\$ 120$ At the age of 65 you would have been investing in the plan for 40 years. If you chose to retire yout would receive annual payments equa one-third of your total contrib utions over the years would be 40 number of years) x $\$ 120$ (annual ontribution) which is $\$ 4,800$. You would receive one-third of this ar $\$ 1,600$ which would be paid in 12 monthly installments of $\$ 133.33$ each. and a like amount each year for the rest of your life.
This check, supplemented by your government Social Security benefits, and any savings and investments you might have, will be your income and security for your years of retirement. If you lived for only 10 years after retirement you would receive $\$ 16,000$, nearly four times the total amoun you had contributed.

## There are other features of the

 plan which make it even more attractive.The plan and all the benefits you have accrued under it may be trans ferred to any company which migh assume the operation of the facilitie now operated by Sandia Corporation. Your contributions are based on the percentage method of payment and this automatically adjusts your contributions to meet changes in

After your retirement and upon your death, your beneficiary wil receive a minimum of one year annuity as a death payment. In th example used here the beneficiar would receive $\$ 1,600$ in addition to Youer payments you had received It may be designate the beneficiary t may be an individual, your estat or an organization and you ma payment.
Of great importance is the fact that you cannot lose. No matter what action you take, or what circumstances may arise, the minimu equal you will receive will b utions plus interest.
Further information concerning your retirement plan may be obtained from C. W. Ca
ing T-301, ext. 2125?

## The Typographic Error

The typographic error Is a slippery thing and sly ou can hunt until you are dizzy But it somehow will get by It is frrms are off the presses, It shrinks down into a it keep shrins it nown into a corne

## The typographic error

Is too small for human eye Till the ink is on the paper
When it grows to mountain size. he Editor stares with horror Then he grabs his hair and groans Upon his hands and moans.

The remainder of the issue May be as clean as clean can be But that typographic error Is the biggest thing you The Blue Bell.

## Square Dance Scheduled

 For First, Third FridayThe Coronado Club has announced that the first and third Friday of each month have been reserved for square dance night so all you enthusiasts mark your calendar and don those togs for the dance. April 20 at $8: 30$ is the next scheduled dance.

Parents of pre-school children will have their questions answered by Miss Florence Schroeder, of the University of New Mexico Home Economics' Department, April 24, at 8 p.m. in the Kindergarden Building. An invitation is extended to
all interested in pre-school children.


SANDIA SQUARE DANCERS do a Grand Right of a live band in the near future. Twice a month the and Left at their regular dance in the Coronado Club. club offers square dance instruction on Tuesday eveThe dancers get together the first and third Friday ning. Anyone interested in joining the square dance of each month and have plans to dance to the tunes group may call Doc Rehbeck, 24157.


Bathtubs and showers are dangerous enough without the hazard of soap underfoot. Broken arms or legs are sometimes the result when the purchase of a suitable non-skid mat is postponed. Without this protection members of families are exposing themselves to possible serious injury.

## Home Sweet Home Isn't the Safest Place on Earth

It's the same old story year after year-too many people are injured in accidents around the home. Many words have been spoken and many articles written on the simple rules which promote safety off the job. Evidently many people have completely ignored this information. Off-the. plant injuries yearly keep thousands of Americans from work.

Causes of injuries at home are numerous. Bath tubs, showers, dark rooms and stairs cause most of the falls. Moving furniture and lifting heavy articles in yardwork are blamed for a large portion of the back injuries.
Humans don't have non-skid soles on their feet. We are not able to see in the black of night. Nor are we gifted with super-human strength. We cannot fall down stairs without running the risk of serious injury.

Knowing all this, why do we ignore the circumstances that so often result in a painful injury?


Keeping a stairway clear is one way to practice safety around the home. High heels, poor lighting and waxed steps still cause accidents which could have been avoided with a little forethought. Here Beverly Harbison, 2113-1, comes down a stairway confidently, having verified in advance



Lifting furniture has brought about many backaches, sprains and discomfort due to ignoring safe rules for lifting. Granville Mann, who has comsiderable work in lifting and moving furniture at the Coronado Club, demonstrates how to lift properly. He is using his legs rather than his

Don't pity the poor ostrich which sticks his head in the sand to avoid danger. Some people seem to feel safe moving in the dark with one hand outstretched. I nearly safe. Turn on the light or use a flashlight, or even matches, sut don't grope around blindly, Your wife may be furniture mover

"I stepped on a nail," is a too-common statement heard from a limping or disabled householder. Be on the safe side; clinch or remove all nails on stray boards and eliminate this type of hazard.

## Unusual Features Are Incorporated Into Newly Completed Building 892

Many of the latest developments
in architectural and construction engineering have been incorporated into Building 892, known as the new Road building, recently occupied by Sandia Corporation. Designed for efficient accommodation of varied functions, the building pro vides efficient working conditions. One of the most interesting fea tures of the structure is the air conditioning which is operated by five large blower units. The system is so designed that the side of the
building in the sun in the summerbuilding in the sun in the summer time receives more cool air and in the winter the shady side will repossible by a zoning plan in the possible by a zoning plan in the
building with each of the blowe units forcing air into one zone. Filtered and washed air is blowı into the building and the humidity of the air is controlled by the tem perature of the water used as a lower will be the humidity of the air. Filtering is actually a two step process with the air first going
through a dry filter and through an electrostatic filter. In the summertime the air is cooled with a 450 -ton refrigeration machine This unit is steam operated and in the winter the steam is used to hea the air.

Air pressure inside the build ing is slightly higher than at mospheric pressure outside. If there are any leaks in the win dows or doors, the air will escape outward and dust will not come in. None of the building's windows may be opened.
The zone control also makes pos sible a difference in temperature and humidity in the various office, laboratory and factory sections. In addion, ell thermostatically controlled heating

Lighting facilities in the building are scientifically designed so that at every point there is more than the minimum of light necessary for the work being performed. Fluorescen lighting is used and the lights ar the instantaneous lighting, non-glare type.
Floo
Fuilding was carefully selected the office and laboratory sections a light colored asphalt tile is used because of its light reflecting qualities, walking ease, durability and appearance In the heavy duty areas concrete floors with a hardened surface are found. The surface of the concrete is as hard as marble and will with stand pressures of 6,000 to 7,000 pounds per square inch.
Another interesting feature found in the building is the clock system ore synchronized located in the security guard office Insulation in the building was in stalled as the concrete wall panels were poured. The insulation and walls were integrated into one piece in the process. All celling areas and high bay areas in the building are acoustically treated with
Three types of electrical conduits were placed in the building when was constructed Wires for the illuminating facilities are in one power lines are in another, and communications lines are in the third

Adding versatility to the build ing is the fact that office and laboratory areas are designed as large rooms which may be sub divided by movable steel parti tions into smaller offices and rooms without changing the lighting
facinies. installed in the building where there are painting rooms or where toxic $r$ inflammable materials are used Bridge cranes spanning the high bay rooms facilitate heavy moving ide additional means of handling heavy materials.
A suite of rooms in a central loca fion houses the first aid facilities A reception room, doctor's office


Security Inspector Paul Littell checks the badge of Henry H. Dancy, duty at the build ing's entrance at all times.


At the controls of the air conditioning unit in Building 892 is Burt Light, 2411. The giant piece of equipment has capacity to manufacture 450 tons of ice per day. The unit is steam powered and in wintertime the steam is used to heat the air being circulated through the building

\section*{linic room and laboratory are in Sandians Enjoy Spaghetti

## Dinner at Gordon King's

} use and a nurse is on duty durin all working hours.The building is protected from fire by an elaborate alarm system. If a fire should start, the system alerts the security guards, tells the fire department the location of the blaze in the building and turns on the prinkler system in that area. Al of these operations occur simulta neously.
An annunciator system has been installed and a person may be called from any part of the building. The system also will automatically give
an evacuation signal. Another alarm system notifies security guards of the unauthorized opening of any door in the building.
All of these features, plus many others, help make the building efficient and practical and at the same time a pleasant place in which to work. Many similar features have been incorporated in other permanent buildings now in use or under construction in the Tech area.

Gordon King's attractive new home was the talk of the evening, Friday March 30, when Division 1514 personnel and their families were guest of the Kings for a spaghetti dinner Assisting Mrs. King as co-hostesse Russell.
Gordon constructed his entire home which is located at 3524 Luke Circle. Woodworking is his hobby and the good examples of his artistic ability along that line

## Notice

A meeting to elect officers for 1951-52 bowling season will be held team members are invited to attend and as soon as a meeting time and place can be determined, the team captains will be notified who in
can notify the team members.


NEW OFFICERS OF SANDIA TOASTMASTERS CLUB were installed last week by George McKim, left, honorary member of the club nd past district gor Joe Tetrault, vice president; Les Cox, secretary; Dan McCarthy, educational chairman, and Harold Gunn, sergeant-at-arms. Not shown is Nate Wineberg, deputy governor

## Expert Recalled from Retirement Still Finds Time for Many Hobbies

Dr. C. N. Hickman Is Archer, Magician And Gadgeteer

"Apparently when the bug bites you, it bites hard, and that's what
happened to me," says Dr. Clarence happened to me," says Dr. Clarence
N. Hickman, 1400 , in referring to his N. Hickman, 1400 , in referring to his
hobby of archery. The technique of hobby of archery. The technique of using the bow and arrow has been an
interest of Dr. Hickman's since he was interest of Dr. Hickman's since he was
five years old when he shot fish in the brooks of Indiana with a bow and arrows fashioned from umbrella stays. Dr. Hickman, a retired Bell Telephone Laboratories man, has conknowledge to the development of mili tary weapons, but has also found time delve into the finer points of archery, his primary hobby, as well as magic photography, mechanical "cadgeteer ing," and fishing.
Dr. Hickman's first technical interest in archery was in 1929 when he worked on measuring the velocity and acceleration of arrows. He found that no one and the Journal anything along that line ute that year published his first paper on the subject.
In 1928 he attended a meeting of the Metropolitan Archery Association which took in the area around New York. Shortly afterward he organized the Long Island Asociation and started a group in his own community of Jackson Heights.
In 1930 when he joined the technical staff of the Bell Telephone Laboratories, he organized the Bell Laboratores Archery group. This archery activity continued into 1940 when engaged in research work for the hat he had to give up archery temporarily
From 1946 to 1947 he was president of the Bell Laboratories Archers and participated in all phases of the archery activities. He designed the club archery emblem.
In 1948 Dr. Hickman co-authored the book, "Archery: The Technical that he reached the peak of his ability as a bowman. He made the highest Olympic score in the city of New York and he hasn't been able to do it again.
In 1950 be attended the National Archery Tournament in Lancaster, Pa., where he made six goals ("bullseyes" to you) in the contest and was awarded the six-goal pin. At that same meet he received another honor-the J. Maurice Thompson medal of honor, Dr. Hickman holds a number of patents, one of which is for backings for bows. He was unable to find a manufacturer who could produce the product and before he knew it, he was in the backing business. The backings were made of silk at first and later replaced by Fortisn. He recently losed this business.
versatile bowman not only
writes about archery, but has what he
thinks is the largest private collection of old books in this country on the subject. He has over 500 volumes, many of which are very rare. Dr. Hickman has always been a very active man. Between terms at Winona College, Winona Lake, Ind., he clerked in clothing stores, and taught mathematics, physics, and German in an Indiana high school. He was graduated from Winona in 1914 with an A. B. degree, majoring in mathematics and physics. In 1918 he
 his Ph. D. from Clark University In 1940 he re
In 1940 he resumed his work in the development of weapons which he started during World War I. He was oaned by Bell Telephone Laboratories to the National Defense Research Committee. For his service with the tial Citation (Medal for Merit) and a tial Cifition (Medal and a War Department in addition to letters of commendation.
ers of conmendation.
Attesting to the fact that he is an unusually active scientist are his more He holds approximately and articles. which ar appristered with the United States Pater tates Patent Office
Another of Dr. Hickman's' hobbies which started when he was a small boy is practicing the art of magic. Follow-
ing his graduation from high school, ing his graduation from high school, the road as a magician. He is a member as a magician. He is a Magicians, and can still performean mystifying feats of legerdemain some
The man of many hobbies says that
when he retired from Bell Laboratories when he retired from Bell Laboratories he was offered various positions with attractive salaries, but refused them all ince he merely wanted to work at his hobbies. When the Korean War return to work by D. A. Quarles, vice president of the Bell Telephone Labpresideries, and he responded to the call to duty. Dr. Hickman agreed to come to Sandia Corporation on a consulting basis, but he says it was purely for patriotic reasons since he had become so engrossed in his hobbies. Mrs. Hickman wasn't pleased at the thought of moving, he says, but now that she is here, her opinion of the southwest has changed and she admits she likes it "a thousand times as much as she had expected to."
Dr. Hickman, now a regular employe and no longer on a consulting basis, says that if he has to work, even though he still prefers not to, he can think of no place he could be any happier than at Sandia.
And he adds that he is anxious to take advantage of the New Mexico fishing. No longer relying on his bow and umbrella stays, he now uses the onventional rod and reel and has
hem all ready for the opening of the fishing season.


Dr. Clarence N. Hickman, 1400, is shown with the six goals he shot at
the National Archery Tournament held in Lancaster, Pa., last year. Dr. Hickman was awarded the six-goal pin for this feat.

Smilit Cmas

"We gave up the lawn, put up some boards;
makes a swell sand box for the kids."
What Is Your Opinion?
If You Were to Retire Tomorrow, How Would You Use Your Time?
CLAUDIA SANGSTER, 1112 at West Lab. I've always been pretty
 and of Mexico and considering funds, etc. I think I would go down there and go down small place and mand place and horseback riding and reading in the

EDWARD DEAN HEATH, 2465 at. West Lab. Id buy a small ranch, probably in the Pecos country or Colorado where there's lots of grass and water. d get a couple of good horses, and then I would have mysel ood time
KAY THOM, 4212. I would go to Santa Fe. I know just the house I'd


JOHN L. VEENEMAN, 2432 at
West Lab. Oh Bov! I'd go up to El West Lab. Oh Bov! I'd go up to El
Vado right now
 Vado right now
nd go fishing.
inice the season ;ince the season
pened, that's een one desire. hen, when ''m
oot fishing, I'd be unting.

JO ANN LOHNER, 3153-1. I think I would settle down in a little
to wn. Have a
small farm with
enough money
and a car, of
course. Every
summer I would
like to travel, say
Hawaii one sum-
mer, Mexico an-
other.

Bowling Leagues
indian league

|  | Team | Won | Lost |
| :---: | :---: | :---: | :---: |
| 1 | Mohawks |  | ${ }^{25}$ |
| 3 | Cuni | 66 | ${ }_{44}$ |
| 4. | Potawatomi | 53 | 47 |
| 5. | Navajo |  | 52 |
| ${ }^{6}$ | Hopi | 42 | 57 |
| 8. | Apaches | ${ }_{23}$ | ${ }_{77}$ |

Team and Individual High team, three games, Hopi, 2636
Second high team, three games, Crees, High team, one game, Mohawks, 938
Second high team, one game, Hopi, 9
 Culley, 604 ividual, one game, Culley, 275
High ind
Second high individual, one game, Lew, Top 10 Averages
 Proore, 162; Gray, 161; Gasta, 1611 Hasse,
broek, $160 ;$ Leonard, 160 ; Parsons, $160 ;$ Rob
ertson, $159 ;$ Horne, $159 ;$ Schaap, 159; Malley, $15 ;$ Showers, $159 ;$ Baumgartner. 159 ;
Brewster, $158 ;$ Redburn, 158 , and Deutsche,
158 ,

## MAJOR LEAGUE Team Browns Senators Red Sox Rehito Sox White Sox Indianses. Yankes. Athetics. Tigers.... Then 

 Team and Individual High team, three games, Indians. 2593Second high team, three games, Yankees, ${ }^{2564}$ High team, one game, Tigers, 927
Second high team, one game, 13 individual, three games, Gasta, 640
High in
Second high individual, three games, Rowe,
High individual, one game, Gasta, 255
Second high individual, one game, Rowe, 46 Top 10 Averages Rowe, $175 ;$ Fink, 172, Redburn, $169 ;$
Gasta, $169 ;$ Nogle, 167 ; Palmer, $166 ;$ Rice, 164; Pagenkopf, 164; Sylvestre, 162; Repetti,
162, Rrown,
and Saylor, 151; Arterburn, 160 ; Hoge, 160,

## INSECT LEAGUE



Team and Individual
High tean, three games, Centipedes, 2112
Second high, team, three games, Fireflies, 2066 tigh team, one game, Centipedes, 745
His
Second high team, one game, Scorpions, ${ }_{526}^{74}$ High individual, three games, J. Partch, Second high individual, three games, Walker, 522
High individual, one game, Fink, 229
Second high individual, one game, Top 10 Averages


When driving in residential areas slow down and be on the lookout for youngsters on tricycles, roller skates, cooters and coaster wagons. Take

Lock up all classified material when it is not being used.

## Classified

Classified advertisements to be published
in THE BULLETIN must be received in
writing in the BULN ETI writing in the BUULLETIN office at least
one week prior one week prior to publication date. Classi-
fied advertisements cannot be taken over
the telephone fhe telenonone. Include your name and your
Base extension number.
FOR SALE-
Hollywood style full size bed with boxsprings and innerspring mattress, haed
board, almost new. Cost $\$ 90$, will sell for board, almost new. Cost $\$ 90$, will sell for
\$50. May be seen at
W. M. Jobe, ext. 21168 . 325 34th, Apt. W, W, W. M. Jobe, ext. 21168 .
Equity in one of two choice Iots in Sandia
Manor. 85 mile panoramic view. Mar$\frac{\text { garet C. Sylvanus, ext. }}{\text { Four } 710-15 \text { white side. }}$ (idewall less than Four $710-15$ white sidewall tires, less than
2,00 miles. H. . Ward, ext 5255 or see
at 1501 Niorth Richmond. 1950 Cherrolet 2-door deluxe, 13,000 miles, $\frac{\$ 1,545 . \text {.. L. Brin, ext. 2814e. }}{1948 \text { Chrysler, club coupe, Hilander model, }}$ good tires and heater, motor A-1. Cali
5. 3905 after $5: 30$ p. m. or see at 2202 Hendola Dremington Dual Head Electric Razor, $\$ 12 ;$ Remington Dual Head Electric Razor, S12;
Universal Auto Sun Visor, \$10; AC Sil
Filter, $44 ; 16$ Ga. Pump Shot Gun with 4
 boxes shel1s, \$3; 12 ft. x 21 ft Let. Het.
Canvas Cat Cover, $\$ 2$; Garden hose rel,
$\$ 1.50$. R. J. Hansen, ext. 23182, 3360 48th Buick Rivera late 1950,2 door super sedan
with
Dynaflow, radio, heater, side mirwith Dynaflow, radio, heater, side mir
rors and all custom equipment including
undercoating and white side-wall tires
 Floral drapes, beige $\begin{aligned} & \text { background, } \\ & \text { matching pair, } \$ 5 \text { pr. } \\ & \text { W. } 0 . \text { S. Smitha, ext }\end{aligned}$ 11848 Oldsmobile Six, deluxe, hydromatic, clean, low. mileage. Winl trade. D. Lematic,
Collins, ext. 23149 or see at 814 S. Cagua $\frac{\text { Dr., next to San Pedro. }}{\text { Motorcycle, } 1949 \text { Harley Davidson, model }}$
 One fireplace screen, self supporting, $381 / /^{\prime \prime}$
x $31 / z^{\prime \prime}$, s10; one fireplace grate, for coal


Robert M. Officer, ext. 25256 or see at 612
N. Spruce, Alb. 7212 . 14 foot steel boat and Martin 60 outboard
motor, both in good condition, $\$ 225$. Joe motor, both in good condition, $\$ 225$. Joe
Duran, ext. 6241 .
Dishwasher attachment for Thor Automagio
 Sandia Base. 1949 Chevrolet De Luxe Styline four door 1949 Chevrolet De Luxe Styline four door
sedan, Sea Foam Green, delelue raadio and
heater, new tires, nylon seat covers. Looks heater, new tires, nylon seat covers. Looks
and runs ilike new, reasonable. Joe Hickey.
ext. 26149 or see at 2133 N. Dickason (in ext. 26149 or see at 2133 N . Dickason (in
nez Addition). Baby bed and inner spring mattress. Jim
Lossing, ext. 5255 or Alb. 3 -0646 or see at
4520 N 8th St Lossing, ext. 5255 or Alb. $3-0646$ or see at
$\frac{4520 \mathrm{~N} .8 \mathrm{sth} \text { St. }}{\text { Bush and Gertz upright piano, beautiful }}$


## WANTED -

Boy living in vicinity of 2700 Haines Ave.,
to do lawn work at that address; both to do awn work at that address; both
sprinkling and mowing. Margaret C. Syl
vanus, ext. 21238 or inquire evenings 2706
Salt Garage or room to rent for storage of small Garage or room to rent for storage of small
quantity of non-inflatiammable material. J.

## FOR RENT-

Room for one or two people, kitchen privi-
leges or board if desired. Nancy Brush, $\frac{\text { ext } 29246 \text { or Alb. } 8563,511 \mathrm{~S} \text {. Girard, Apt. K. }}{\text { Three bedroom house, stove and refrigera- }}$ tore, peaved patio, completely land latigeaped
tored ard, near schools and shopping center.
4100 Ridgeley Drive. Kay Flood, ext. 25141

## RIDERS WANTED-

Vicinity of Mackland Dr., and Carlisle,
RIDE WANTED-
Vicinity of Eighth and Roma. Ruth Cox,
$\frac{\text { ext. 21 }}{} 5023$ N. 1 th St. for two people to Sandia
Base. Ruby Groll, ext. 5137 or Alb. 3 -. 513 .

Bowling League Champions


THE MOHAWKS OF THE INDIAN LEAGUE will be league champions after they have bowled two more evenings. Far out in front, they have the top spot cinched. Seated is P. J. Priore, 1251, team captain. Standing, left to right, are C. C. Whitney, 1211, and H. M. Macneill, C. P. Glaese, I. S. Schaap, T. T. Robertson, and C. S. Wolowicz, all of 1251 . Chester Wolowicz is not a member of the playing team, but is a loyal rooter who appeared for almost every game the team bowled.


FOOTBALL LEAGUE BOWLING CHAMPIONS of Sandia Corporation, The Red Skins, are pictured here wearing the smile of victory. Seated is Cecil H. Johnson, 1251, team captain. Standing, left to right are Fred Eichert, 1251, Randy Parsons, 1251, Art Eiffert, 1211, Vince Melillo, 1251, and Barney Spohr, 1251.


TOr JUNGLE LEAGUE BOWLING TEAM, The Wildcats. Roy Stradford, 2113, captain, is seated and standing, left to right, are Bob McClendon, 2112, Dick Marmon, 2242, Ben Jolliffe, 2112, and Lyle Hake, 1623.

## ATTENTION ALL BOWLERS

Sandia Corporation and AEC personnel interested in bowling in a summer league are requested to fill out the following questionnaire and return it to
Rowe, West Lab.

This information should be supplied as soon as possible so that leagues can be formed and arrangements for available alleys made. Specify your choice of alleys, but leagues will operate where alleys are available. Nights available will most likely be Tuesday, Wednesday or Thursday.

Name $\quad$ Dept. ${ }^{-}$
Address $\quad$ C.

$\qquad$
Coronado Club

Sport Bowl

